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May 1979

FARM INDEX

Crossroads for Farm Policy

Outlook

Farmers are expected to pay close to $108 billion for production inputs this year, up 12 percent from 1978. Prices are on the rise for most input categories and potential acreage increases will cause an increase in use of some inputs.

Biggest culprits: energy and interest rates. Higher energy costs and interest charges will have a particularly big impact on production expenses.

Members of the Organization of Petroleum Exporting Countries (OPEC) speeded up their timetable for raising prices, and on April 1 began charging the full 14.5-percent price increase originally scheduled to be phased in by October 15.

At the same time, OPEC members were given the option to apply surcharges to the minimum price. Some exporters have implemented the charges, while others have not.

Pump jump. For agricultural producers, the minimum OPEC price increase translates into a 4-cents-a-gallon increase in the pump price of gasoline over December 1978. The allowed OPEC surcharge of $4 a barrel could add another 6 cents a gallon.

On top of that, pass-through of added refining costs likely will add 2 to 3 cents a gallon and deregulation of domestic oil another 5 cents a gallon. If all events occur, the total price increase could be 14-16 cents per gallon.

Interest rates at all-time high. Interest rates on farm loans, already at record highs this spring, could climb even more if attempts are made to curb inflation via further tightening of credit.

Rates topping 10 percent for nonreal estate loans were common at many rural banks and production credit associations.

Interest rates on farm mortgage loans at the beginning of the year were averaging 8.6 percent at Federal Land Banks and 9.8 percent at life insurance companies.

However, interest rates on farm loans are still below prime rates, meaning that farmers can still borrow money for less than prime industrial borrowers.

With higher interest rates and greater debt, interest expenses are expected to increase $2 billion this year to $11 billion.

Loan-to-deposit ratios at rural banks are high relative to historical norms, which usually implies a reduced willingness of banks to further expand their loan volume. However, both bank and production credit association loan volumes are still rising.

Land prices continue surge. Farm real estate values increased an average of 14 percent for the year ending February 1, 1979. Last year farm real estate values increased 9 percent.

No letup in the land price rise is in sight. In fact, experts expect that values will rise another 10 to 15 percent by next February 1.

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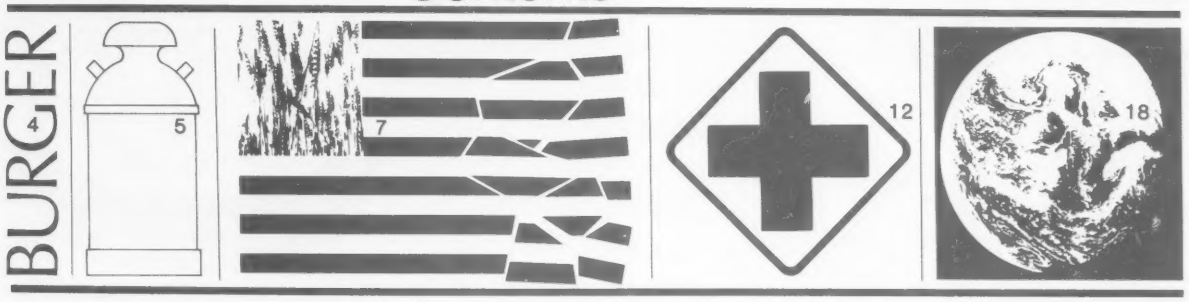

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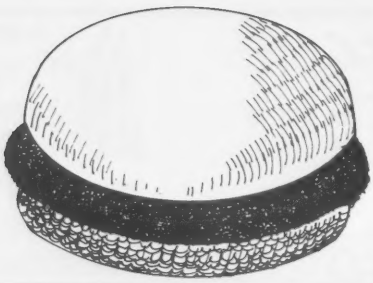
Goodby to a Good Buy?



The perennial meat counter bargain—hamburger—is the big culprit behind rising beef prices this year.

Prices for all red meats are expected to rise about 13 percent this year, with hamburger prices up considerably more—to an alltime high.

For hamburger lovers, this news may be depressing, since Americans eat more hamburger (including ground beef) than any other cut of meat and about a fourth of all money spent for beef goes for hamburger.

What's behind these changes in prices? It's necessary to go back a few years to get the whole story.

Fat years

In the late 1960's and early 1970's, consumers substantially increased their consumption of beef—especially Choice cuts derived from grain-fed cattle confined in feedlots. The demand for Choice beef occurred when grain prices were low.

Beef producers responded to the low grain prices and obvious consumer preference by increasing the size of their herds. They also fed more grain to cattle, thus increasing supplies of Choice beef.

But in 1973, grain prices rose sharply and cattle feeders cut back substantially on the number of grain-fed animals. As a result, Choice beef supplies dwindled, while supplies of ground beef (usually obtained from cattle that graze on pastures and ranges) increased.

Lean years

With more beef on the market, prices dropped below what cattlemen were paying to raise the beef. The result: Producers lost money and the more they lost, the more they reduced the size of their herds to cut costs.

From 1973 to 1977, producers had a rough time of it—cattle prices were low, droughts reduced forage supplies, feed costs were high, and two bitter cold winters compounded their problems. They sent even more cattle to market, just to cut their losses. During this period, cattle feeders lost money on most of the cattle they sold, sometimes more than $100 a head.

With so much beef going to market, supplies at the grocery store mounted, and prices were pushed down further. In 1976, for example, prices were 5 percent below the year before. Consumers took advantage of the bargain prices and ate more and more beef. In 1976, consumption of beef reached an all-time high.

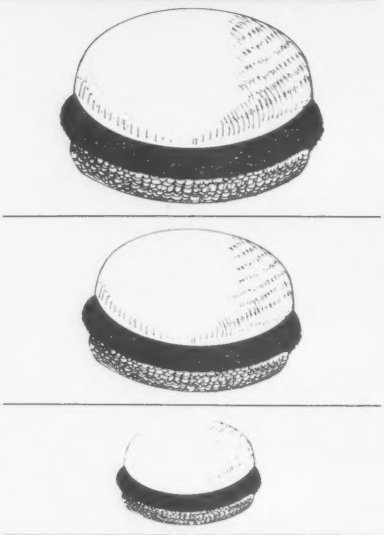
Rising retail prices

It wasn't until 1978 that the herd reduction began to pay off—in the form of higher cattle prices. After 4 years of low prices and large financial losses, producers were finally beginning to show a profit—which meant higher prices at the supermarket.

Today, beef producers are getting good returns for grain-fed cattle. As a result, they are cutting back the number of cows culled from herd and the number of young cattle marketed directly from pasture—which reduces hamburger supplies and pushes prices up.

Herd rebuilding

The higher cattle prices should encourage producers to rebuild their herds. During the herd rebuilding, more cows will be held from market to be bred. And since cow meat is one of the major sources of hamburger, supplies will drop even further, pushing hamburger prices higher.



Unfortunately for consumers, cattle herds can't be rebuilt overnight. It takes more than 40 months from the time a female calf is born to the time she is bred and her offspring reaches a marketable weight. And even if a mature cow, already on hand, is bred, it takes 27 months for her offspring to reach a marketable weight.

These up and down movements in beef supplies and prices are all part of the cattle cycle—each cycle is about 10 years long. We are now at the stage of the cycle where supplies of beef will remain well below the 1975–77 level for several years. It will probably be 2 or 3 years before beef supplies start to increase and prices drop.

[Based on special material compiled by the Commodity Economics Division.]

Small Milk Processors: Surviving the Squeeze?

A tight competitive squeeze within a changing market structure offers a bleak outlook for success among small, independent fluid milk processors.

Caught between fewer-but-larger firms in both the processing industry and among milk distributors, these traditional processors may face stiff odds against survival in coming years, according to some dairy economics experts.

The hard times for these small processors have come on quickly during the past few decades—a timeframe that parallels the period in which supermarkets have come to dominate fluid milk sales.

Only a quarter of a century ago, more than half the total milk sales were made through home delivery. Today, only about 5 percent of this sales volume is handled by the traditional "milkman," while supermarkets and other large outlets control more than two-thirds of the sales volume.

The squeeze

This structural change in milk marketing has profoundly affected the entire milk industry. Contracts for servicing these outlets must be bid for frequently, and they often hinge on very small price differentials and other contract terms. Thus, the large food firms can greatly influence trends in pricing and in servicing.

In recent years, food chains have contracted for milk through central or district offices, usually from only one supplier.

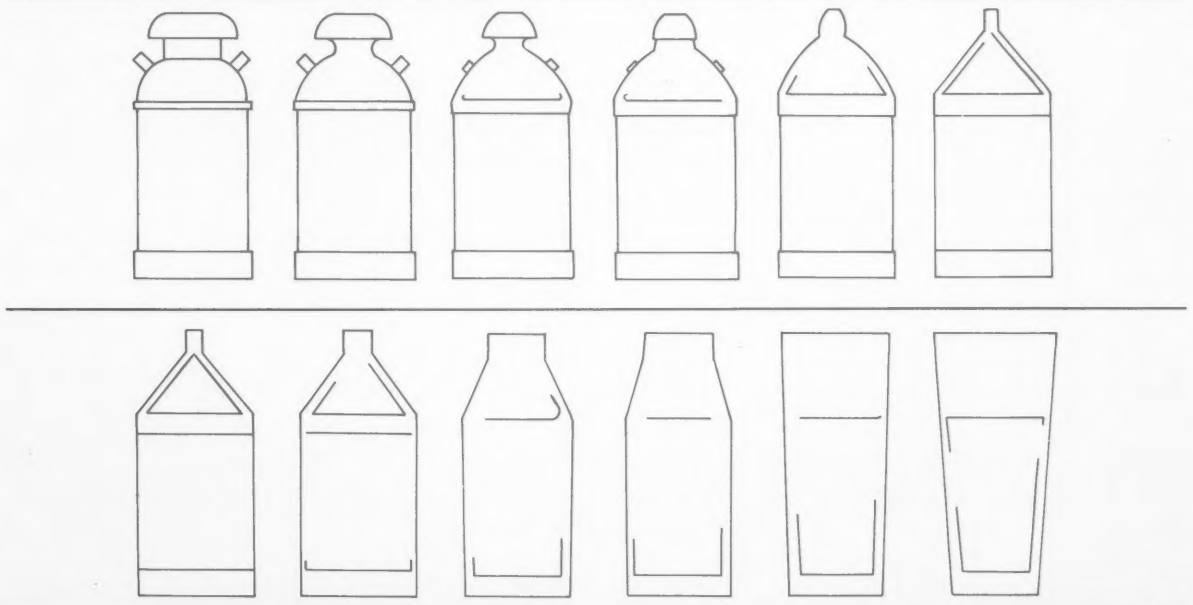
From the supermarket's perspective, central purchasing offers savings by lowering their milk costs, reducing delivery services, and by allowing fewer suppliers to deal with.

Still another trend within the supermarket industry provides anxiety for small, independent dairies: Some large chains are now operating their own milk plants to save in distribution costs.

Vertical integration

These trends toward vertical integration—internalizing within the firm related functions in the marketing channel for more efficient management—by food chains appear to be widespread.

A decade ago, a survey of food chains in the North Central region



found that 65 percent had milk programs of some sort. More than half had their own program but didn't operate milk plants, 3 percent had milk plants, and 8 percent were on their affiliated wholesaler's milk program. More recent surveys in other regions have confirmed this trend.

Even small independent food chains and stores—traditional outlets for small independent dairies—have found an advantage in affiliating with their wholesalers to enjoy centralized buying at the wholesale level.

Popular in the South

This technique has been popular in the South where, by 1970, about half the food chains carried some of their milk in private labels.

With these fewer, larger, and more centralized outlets at stake, independent dairies have been besieged with problems:

- Competition has reduced the profit margin in processing and distributing fluid milk.
- Greater risk has come with these large, lumpy contracts.
- Discounts given to the large outlets have exceeded the savings that stem from large-volume distribution.
- The processor's brand has lost its traditional recognition and effectiveness, as supermarkets have often required that their own label appear on the container.

Faced with this trend among milk retailers, milk processors began adjusting to this changing market a decade ago. Mergers and consolidations have become the rule rather than the exception among the independent dairy firms that have survived.

Dairy and convenience stores

Some dairies have succeeded with a different tact: processor-owned dairy and convenience markets. Many of these stores have, in recent years, diversified into nondairy items to offer a full array of convenience supplies.

At the other end of the marketing channel, farm cooperatives have been getting into the business of milk processing and distribution. These organizations are "integrating forward" in the flow of the product from farm to grocery dairy case at the same time that large retailers are "integrating backward" to move into fluid milk processing.

As a result, the trend is for a small number of relatively large dairy firms to bargain with a relatively small number of large buyers.

Painful dilemma

So, with large suppliers and large buyers integrating toward each other, where does this leave the small, independent fluid milk processor? For many, it leaves them with the dilemma of either expanding or discontinuing their business.

This is especially true for single plant firms. Since food chains usually seek supplies on a regional basis, processors operate on a large-scale basis to realize economies of size as well as to be able to service accounts over a broad geographic area.

Independent dairy firms generally agree that an aggressive expansion policy is necessary for survival in today's market.

But, as one exasperated dairy firm official asked, "Where do we get this growth? . . . Small grocery stores are going out. Your chain supermarkets are going to their own plants, and stores with buying groups are usually tied up with national dairies . . . We just can't put milk out at the kind of prices some larger institutional accounts are going for."

Dreary outlook

If this outlook is dreary for the small processors, some straws of hope may offer some encouragement.

According to one USDA dairy expert, the forces exerted against traditional fluid milk processors may be somewhat blunted by:

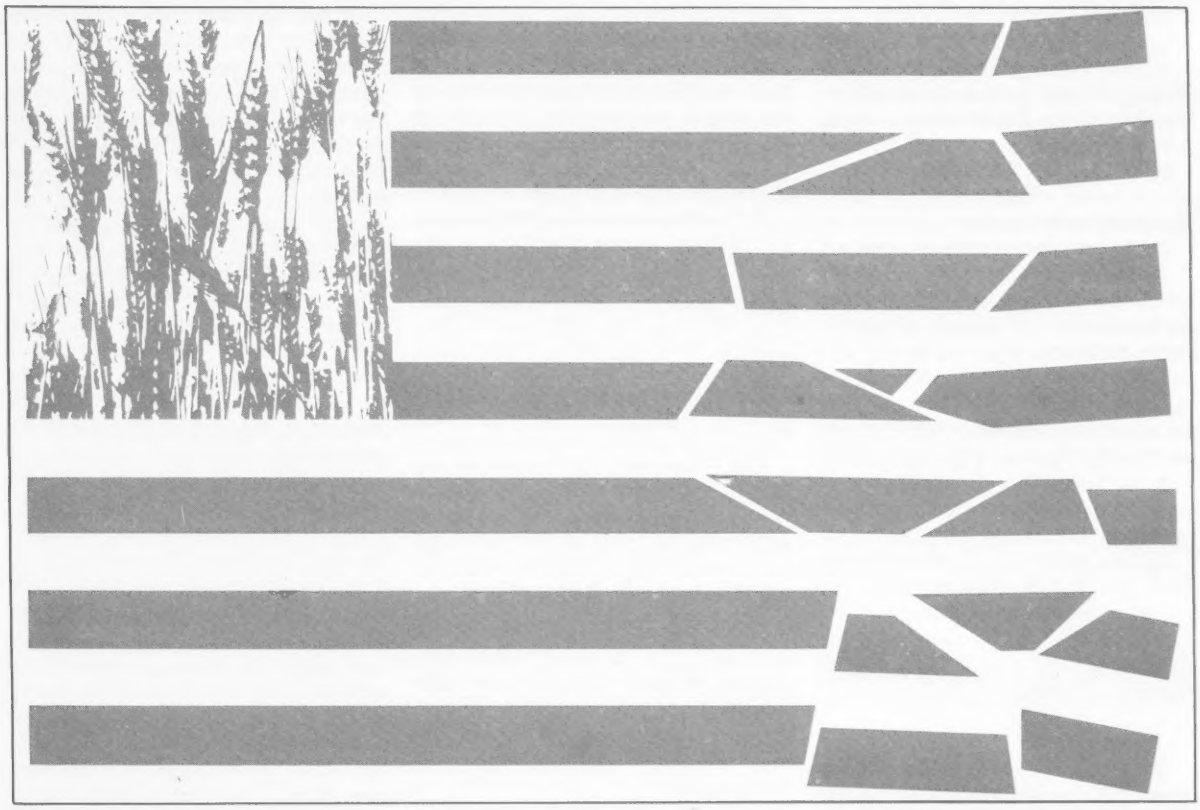
- Rising energy and transportation costs, which may make it less profitable for chains to build huge central processing plants to service wide areas. There may be room to improve efficiency by packaging milk for more than one food chain in major metropolitan areas.

In this way, the processors could realize some economies of size while servicing several chains within a more limited sales area.

- Franchise systems for groups of small firms, perhaps similar to the successful systems used by voluntary and cooperative food chains.
- Joint ventures between milk processors and farmer cooperatives, or between food chains and milk processors or cooperatives may also be workable systems that offer size economies.

[Based on the paper, "Adjusting to Milk Programs of Food Chains," by Richard F. Fallert, Commodity Economics Division, presented at the Dairy and Food Industry Conference, Ohio State University, Columbus, Ohio, February 14–15, 1979.]

Foreign Buyers in the Land of Plenty



Reports of marks, yen, and petrodollars pouring into the breadbasket of America, buying up chunks of prime U.S. farmland, have stirred up farmers and policymakers alike.

But recent evidence indicates that, at least on a national level, there hasn't been a foreign rush on U.S. farmland—even with the devaluation of the U.S. dollar and the accumulation of wealth in many of the oil-producing nations. Most foreign purchases of U.S. real estate that have occurred involve urban, not rural, land.

That said, however, it should also be added that significance is often a matter of perspective. In this case, it is becoming apparent that in many counties and some States, sales of farmland to foreign investors have amounted to more than a grain of sand.

County-by-county scrutiny

These conclusions emerge from several surveys of overseas investment in U.S. property (see August 1978 *Farm Index*). Perhaps the most comprehensive to date is a national study on sales of farm and ranch land to foreign investors for the 18-month period—January 1977 to June 1978. It did not include land already held by foreign interests when the study began.

The study was conducted for the Senate Committee on Agriculture, Nutrition, and Forestry, which requested both Extension agents and Agricultural Stabilization and Conser-

vation Service (ASCS) local staff to report, county by county, on land transfers throughout the Nation, including those involving foreign investors. At the Committee's request, ESCS compiled and analyzed the results.

Conducting the count

Data on land transfers were obtained from warranty deeds, local officials, realtors, and agencies serving agriculture in the States. However, some purchases were made in such a way that it was difficult to identify the source of the capital or the controlling interest in the farmland. Some foreign investments may also have been missed because only purchases of certain minimum acreages were reported.

On the other hand, where Extension and ASCS data differed, the higher of the two estimates was used in the final analysis, very possibly overstating the number and size of foreign purchases.

How much land?

Over the 18-month study period, about 600 foreign investors acquired 827,000 acres of U.S. land in agricultural use, including 341,000 acres of cropland. Nationwide, this amounted to about eight one-hundredths of 1 percent of all farmland and around 2.25 percent of all farmland sales.

Looked at another way, these 18-month data translate into an annual purchase rate of about one-half million farmland acres, or about a twentieth of 1 percent of all U.S. farmland.

Consequently, if foreign investment continued at that rate, foreign interests would add only slightly more than 1 percent of U.S. farmland to their holdings over the next 20 years—and even that would assume that none of the land is sold back to U.S. citizens during the next 2 decades.

Concentration is the key

If these purchases had been evenly distributed across the Nation, the issue of foreign investment in farmland might have received little attention. But the fact is that purchases have trickled into some areas more than others—20 States accounted for about 90 percent of all foreign-purchased acreage.

The heaviest concentration of foreign investment was in the South. Of the top six States, which together accounted for over 50 percent of the land transferred to foreign interests, only one was outside that region.

These six States, in order of the amount of farmland purchased, were: Oregon, Texas, Georgia, Louisiana, Arkansas, and Florida. Oregon had about 130,000 acres sold to foreigners, most of it through one large ranch purchase.

Another measure

Another way to measure concentration is to consider how much of the total farmland acreage available in a State is bought by foreign investors. By this indicator, some States were much more affected than others.

Vermont, for example, ranked near the bottom of all States in terms of farmland sold to aliens (1,900 acres). However, on an annual basis, this land represented three-tenths of 1 percent of all Vermont farmland.

At that rate, about 6 percent of the State's agricultural land would go into foreign hands over the next 20 years, assuming that all foreign purchases were from U.S. citizens and that none of the foreign purchasers sold the land back to U.S. citizens over that period.

Texas acreage

On the other hand, Texas was second largest in foreign acreage purchases (93,000 acres), but these transfers, on an annual basis, accounted for only four one-hundredths of 1 percent of the State's farmland. Therefore, according to the same assumptions, less than 1 percent of Texas farmland would be sold to foreigners by 1999.

The foreign share of total farmland acreage transferred in each State is one more revealing measure of how the impact can vary from State to State.

In Vermont, it was reported that nearly a fifth of all acreage transferred during the 18-month period went to foreign buyers. In Georgia, Louisiana, Mississippi, and Tennessee, foreign purchases were over a tenth of the total.

Size of purchases

In general, the results of the study indicated that foreign investors purchased larger tracts than the average buyer. Tennesse was an extreme example, where the average foreign purchase of about 1,500 acres was 65 times larger than the 23-acre average of all tracts purchased.

More typical, perhaps, was Georgia, where the average foreign purchase of 994 acres compared with the

256-acre average for tracts purchased by all buyers.

One partial explanation for the larger foreign purchases may be that many domestic buyers purchase small parcels for farm expansion rather than as complete farm units, thus lowering the overall average size of tracts purchased. Another may relate to the financial resources of the foreign investors and the generally speculative nature of these purchases.

The right price

No conclusive evidence was found to indicate any strong relationship between the average price of farmland in a State and the level of foreign investment.

Although foreign investment activity peaked at about $1,000 an acre, the study did not answer the question of whether the foreign investors were bidding up the price of farmland or were only paying the prevailing market price for the quality premium they were seeking.

Not surprisingly, there was evidence that the level of investment activity was lower in States with legal restrictions, although foreign purchases apparently occur despite these regulations.

Reports on the nationalities of foreign investors, though not complete enough for a percentage breakdown, did indicate that a good many buyers were West European, while others were from Canada, Japan, Latin America, and the Arab states.

The question of land use

Similarly, information on land use before and after purchase was not systematically compiled. However, it was evident that a considerable portion of foreign-purchased farmland was still in agricultural production at the time of the survey. Uses and products included all major grains, all types of livestock, soybeans, tobacco, cotton, peanuts, timber, fruits and vegetables, pasture, and rice.

Foreign investors were not queried on their future plans for the land. There were at least a few cases where the intended use was suspected to be something other than farming, such as oil production, mining, or residential development.

Nevertheless, what Texas reported may be more typical: "The majority of land purchased is currently in production, and indications are that it will be kept in production."

New regulations

Thanks to new rules, the days of "estimating" the extent of foreign investment may soon be over. Regulations issued by USDA on February 2, 1979, require all aliens who own or have a financial interest in more than 1 acre of U.S. farmland—or who gross more than $1,000 from any plot of U.S. land—to report their holdings to county ASCS offices.

August 6, 1979, is the deadline for reporting current holdings, and new purchases must be reported within 90 days. Failure to report may result in fines up to 25 percent of the property's assessed value.

The registration system was mandated by the Agricultural Foreign Investment Disclosure Act of 1978, signed into law last October. The Act also calls for an analysis of the impact of foreign investment on family farms and rural communities. Based on the findings, lawmakers will decide whether any actions are needed at the Federal level.

Some benefits as well

The many measures taken in the last few years to monitor foreign investment reflect, in part, an effort to improve balance of payments data in the area of direct investment. Real estate is particularly difficult to monitor.

Of course, there is also concern that foreign investors may bid up the price of farmland beyond the land's productive value or even withdraw the land from agricultural use.

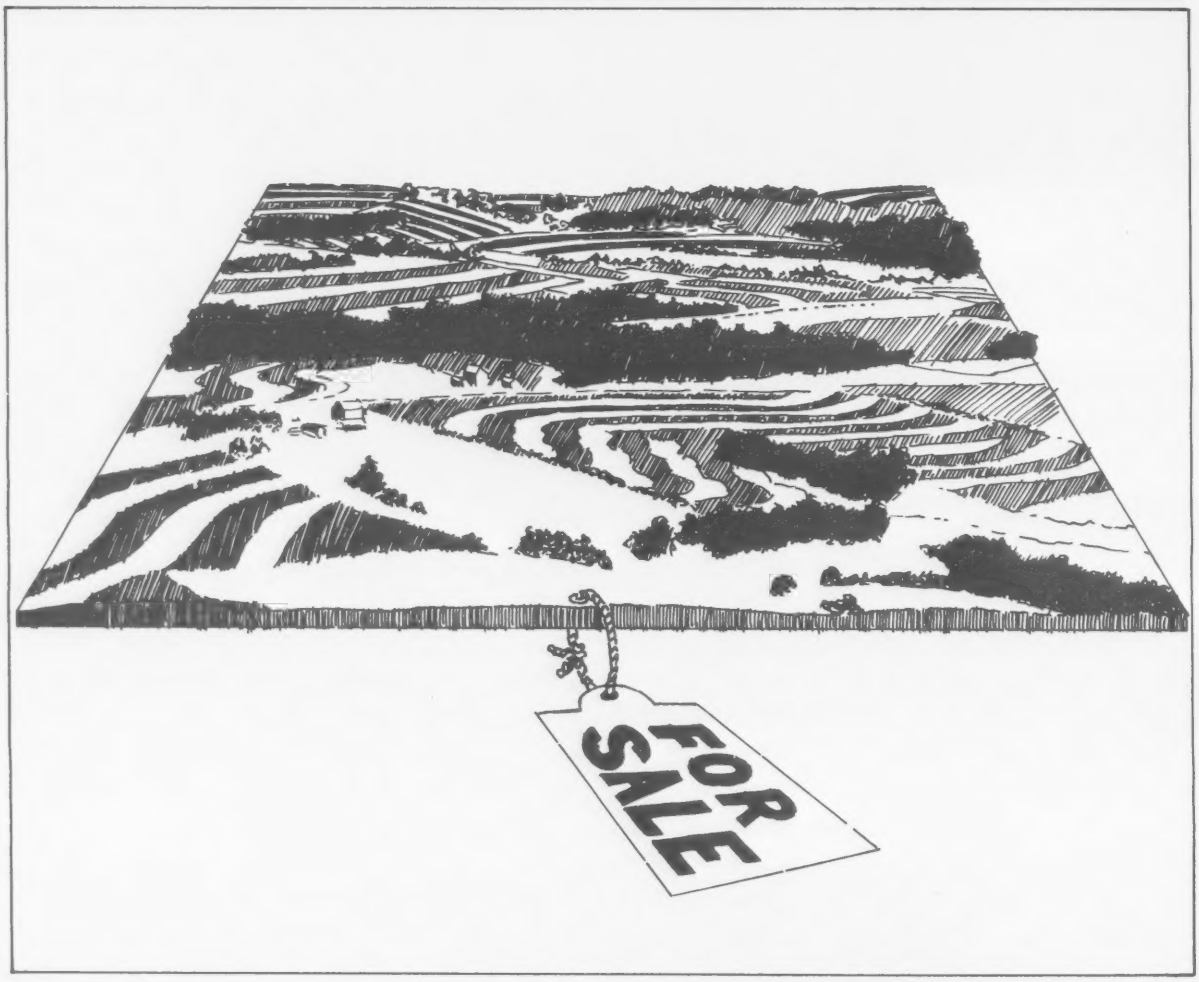
Although these issues are major ones, it is also worthwhile to note that foreign investment is not without some benefits as well.

In the USDA study, for example, the Texas report indicated that most farmland transfers to foreign investors in that State were 100-percent equity purchases, with no U.S. financing involved. If this were the general pattern nationwide, it would mean very favorable balance of payments effects.

Furthermore, Michigan reported that several farmers who sold land to foreigners reinvested the proceeds to improve their own operations. Such a fresh influx of capital investment in agriculture can also benefit entire communities.

[Based on information analyzed by Philip M. Small, National Resource Economics Division, appearing in *Foreign Investment in United States Agricultural Land,* Committee on Agriculture, Nutrition, and Forestry, U.S. Senate.]

Tax Laws: Boon to Foreign Investors?



Do U.S. tax laws make it attractive for foreign investors to purchase American farmland? Do these foreign investors get a bigger tax break than Americans who wish to invest in that same land?

Answers to these questions seem to be as nebulous as the Internal Revenue Code itself. Yet, according to several Economics, Statistics, and Cooperatives Service (ESCS) economists, the answers to both questions could be "yes."

The economists agree some incentives for foreign investment are built into our tax code. They involve the way the foreign investor pays for his investment, whether he incorporates or becomes part of a corporation, and for what purpose the land is used.

Avoiding captial gains

If the foreigner's purchase is considered an investment, then he can avoid paying a tax on any gain from the sale or disposition of the property—so long as he doesn't live in the U.S. for more than half of the calendar year.

But if his purchase is related to some kind of U.S. trade or business—for example, if he bought the land to farm it and sell the produce—then any profit from the sale of the land is subject to capital gains tax.

Profits from the farm are subject to income taxes—30 percent of income for a passive investor and regular U.S. tax rates on net income for the investor actively engaged in U.S. trade or business.

Incentives for investment

Tax incentives for foreign investment vary widely, but basically depend on four things:

- The investor's anticipation of rising prices for farmland.
- The rate at which he discounts future income.
- How long he plans to hold his farmland investment.
- His expected taxable income in the year of sale.

For a large investor whose capital gains would place him in a 60-percent tax bracket and a 30-percent bracket on capital gains, the incentive would range from 12 to 15 percent if he speculated that farmland would appreciate 8 percent per year. (This assumes a 10-percent discount rate on future income.)

Would pay more

This implies that the foreign investor would be willing to pay 12 to 15 percent more for farmland as a result of the capital gains tax exemption.

His "incentive" would be about 9 percent if he expects farmland value to appreciate at 6 percent a year. It could be as high as 24 percent if he expects farmland to appreciate an average of 10 percent over a 20-year period.

The U.S. has "tax treaties" with certain countries and, as a result, there is a difference in benefits to the investor from a tax treaty country and the investor from a country that has no treaty.

The former has a decided edge. The treaty, actually an economic document, allows special treatment to foreign investors in U.S. real estate. For investors from a number of treaty nations, the 30 percent gross income tax bite can be avoided.

"Passive investor"

But the investor has to remain a "passive investor"—one who invests more or less as a sideline—and not enter into a share lease agreement. His cash lease must be carefully drawn to avoid the position of being "effectively connected" with a U.S. business.

(A share lease is one in which the investor shares in the income from farmland production. A cash lease involves an agreed-upon cash figure, regardless of production income.)

For nontreaty nation investors, any incentive offered by the capital gains tax exemption is offset by the 30-percent tax on annual gross income. An investor from a nontreaty nation would not normally be helped by U.S. tax laws unless he is in a rising U.S. real estate market for a long time. Then his gain will come primarily from appreciating land values.

Using corporations

Foreign land investors often favor using U.S. corporations for their operations. By so doing, they can possibly avoid capital gains and get a reduced tax rate on dividends without restrictions on management by the owner. That is, the corporation could lease the land to tenant farmers, or farm the land itself through the use of a full-time manager or a farm management company.

So it appears that the incentive for foreign investment in U.S. farmland varies with the expectations of the investor. In a period of sharply rising farmland prices, he can expect substantial gains.

Other reasons for investment

However, tax incentives are only one of the many reasons foreigners might want to invest in U.S. farmland. Others include their desire for diversification; the security of farmland investment, particularly U.S. farmland; the stability of the American governmental system; and the favorable price of U.S. farmland, compared with those in Western Europe and Japan. The latter reason is, of course, aided by the decline in the value of the dollar.

[Based on the manuscript, "Federal Taxation of and Incentives for Foreign Investment in U.S. Real Estate," By Donald Abramson, Karl Gertel, and James A. Lewis, Natural Resource Economics Division.]

Crossroads for Farm Policy

EDITOR'S NOTE: The following article is a synopsis of a speech by J.B. Penn, Deputy Administrator for Economics, Economics, Statistics, and Cooperatives Service, at the seminar, "Food and Agricultural Policy Issues: 1979 and Beyond," Michigan State University, March 19, 1979.

Farmer protests in Washington, Congressional debate on multilateral trade agreements, and continuing food price inflation have heightened the public's interest in food and farm policy issues.

And the 1979 policy agenda of the 96th Congress and the Administration will undoubtedly increase this interest. It includes meat imports, sugar programs, crop insurance, the International Emergency Wheat Reserve, and the Multilateral Trade Agreements.

In addition, other issues, such as price and income support, food program expenditures, and food safety and quality, may be forced onto the policy agenda by economic and political conditions.

Just what are the economic and political conditions that will shape U.S. farm policy?

Economic conditions

According to J.B. Penn, the economic conditions involve both the world and the U.S. perspectives.

The world perspective. The world has now experienced three successive favorable harvests; its stocks of grain, nearly depleted earlier in this decade, have been replenished. "Fears about the world's capacity to feed itself have been allayed," Penn said, "at least temporarily."

The 1978/79 grain crop—a record 1.55 billion tons—is 7 percent greater than the year before. Consumption will continue to rise at the 3-percent average annual rate observed since 1960, but stocks will build as production slightly exceeds consumption.

Trade prospects appear good for wheat—volume will be near the 1977/78 record of 75 million metric tons. As for coarse grains, trade will likely fall to the 1975-77 average of 88 million metric tons, a 7-percent reduction.

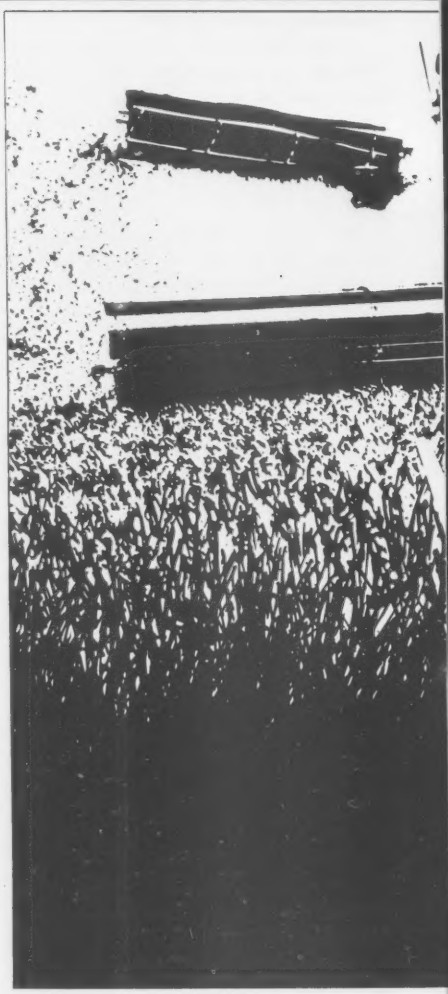
The U.S. perspective. The U.S. achieved another record harvest in 1978—1 percent above 1977, but nearly a third larger than a decade earlier. "We have rebuilt domestic grain stocks and established a managed reserve for the first time in the country's history," Penn said.

Two-thirds of the U.S. grain crop will be used domestically in 1978/79—4 percent more than in 1977. Livestock feeding will account for half of the total, 7 percent more than a year ago, but still 12 million metric tons below the 1973/74 peak.

Bright trade prospects for 1979—our sales value could reach a record of over $30 billion by the end of this fiscal year and the volume could match last year's record 122 million metric tons—plus stable to rising commodity prices, particularly for livestock products, point to higher net farm income.

How much higher? The forecast range is $28 to $33 billion, with $31 billion now the most likely outcome for 1979.

Retail food prices are expected to rise 8 to 10 percent in 1979. "We expect food prices to increase slightly faster than the general rate of inflation this year," Penn stated, "but there is still a great deal of uncertainty about price movements for the rest of the year.



"Weather disruptions or significant policy changes by key nations could cause a return to the double-digit food price increases which fueled inflation

in 1973 and 1974."

Political conditions

Political conditions are just as important as economic conditions in shaping U.S. farm policy.

According to Penn, the policy process involves many more participants than just a few years ago.

"Participants come from the Congress and its committees, agencies of the Executive Branch, and policy units of the White House," he noted.

Furthermore, "there are many interest groups representing individual commodity producers and farmers in general, consumers, cooperatives, agribusinesses, the hunger lobby, public officials, and foreign governments."

Penn suggested that the U.S. is nearing an important crossroads of national policy for food and agriculture.

He contended that "the traditional policy prescriptions are no longer appropriate for the farm sector as it exists today."

Heterogenous and changing

The continuing protest of the American Agriculture Movement, even when economic conditions in the farm sector have dramatically improved, serves to focus attention on the structure of the farming sector, which is heterogenous and constantly changing.

"The farms of today are widely diverse, varying by size, type, geographic area, tenure status and age of operator, managerial ability, financial position of the operators, and so forth," Penn observed.

"Because of this, there is no longer a single 'farm problem,'" he continued. "The diversity of the sector suggests that there are now several problems. Yet, the policy tools available to the decisionmakers were designed to treat a single problem—the traditional 'incomes' problem." (Incomes in the farm sector are significantly below those in the nonfarm economy.)

Large-scale operators

As an example, Penn noted that the problem for the larger farm operators—those with gross annual sales of $40,000 or more—is related more to stability of prices and incomes than to the levels of either. These operators

must maintain a cash flow sufficient to meet operating expenses and to service a large debt load.

On the other hand, the primary problem for the small-scale farmers, who have gross sales of less than $20,000 yearly, may be of a welfare or development nature, requiring something besides commodity programs for effective treatment.

By the same token, the middle-size group of farmers—those with gross annual sales between $20,000 and $40,000—may have problems of both the large- and the small-scale operators.

Specific problems

According to Penn, researchers must devise measures of economic well-being that will enable future policies to treat the specific problems that the different farm groups may actually have, "not what we think they have."

"I foresee the focus of future policies changing to recognize this heterogeneity of the farm sector," Penn said, "and to the use of policy tools appropriate for specific problems."

One factor certain to contribute to this debate is accelerating land prices and the concern over who will control the land—a few farmers, many farmers, foreigners, corporations, or the Government.

No "farm policy"

Penn also suggested that the future will see "a greater integration of the several related elements of policy." He noted that there is no "farm policy" today, but rather a "food and agricultural policy," which encompasses not only commodity prices and farm income, but also food prices and consumer expenditures, nutrition, food quality and safety, inflation, Treasury expenditures, the balance of payments, resource use and the environment, and the development of economic opportunities in rural America.

"A narrow approach to agricultural policy is no longer politically feasible," Penn said, "nor, in my view, is it socially desirable."

He predicted that U.S. policy will gradually be broadened to more fully include nutrition and food safety and quality.

Food and nutrition policy

Essentially, America's food and nutrition policy has always been to ensure a continued supply of safe, wholesome, and nutritionally balanced food to all Americans at reasonable prices.

While this basic statement is still true today, Penn acknowledged that "the emphasis given the different components has shifted," reflecting the changing concerns of society.

"This concern for food and nutrition does not mean that farm issues have been or will be slighted," Penn assured. "Indeed, adequate supplies of farm commodities from an economically viable farm sector are the foundations of a successful policy."

The policy debate is thus not between food versus farm policy, nor should it pit producers against consumers. Rather, "the essence of any controversy rests on the interrelationships between the farm and food programs."

Food safety and quality

As for food safety and quality, the public's concern will increase as food processing and preparation are done more and more outside the home.

Penn stated that with the growth of the consumer movement and the increased participation of consumers in policy development, the interrelationships between food and farm policy are being brought into sharper perspective. He added, however, that "our awareness and understanding of the directions and magnitudes of these interrelationships are still very much limited."

He pointed to the concern about food and feed additives as an example. "The scientific community cannot yet offer a consensus on the relationship (between the use of the additives and the effects on human health), and in the absence of hard evidence, unsubstantiated claims and speculation continue to affect consumption."

Aside from the validity of the evidence linking food and feed additives to health, "a policy question is whether provisions of our farm and food programs create a conflict between economic and physical welfare."

Penn continued, "The resolution of the controversy through public policy rests upon the tenuous measurement and evaluation of the social costs and benefits of the private economic and physical welfare of different groups in our society.

"Adoption of bans on additives would likely cause some economic dislocation and necessitate a degree of resource adjustment. The degree of these impacts depends on *how* regulations are implemented, as well as the substances under scrutiny."

[J. B. Penn's speech was entitled, "Future Directions in U.S. Farm Policy."]

U.S. Oilseed Processors: Battling the Odds

Margarines, shortenings, mayonnaise, and cooking oils have the same basic source–oilseeds. Even food supplements for humans and feed mixtures for animals are derived from these seeds. It's little wonder that oilseeds are a large-scale industry.

For the past 20 years, the U.S. has concentrated on developing markets for its oilseeds—especially soybeans—and oilseed products. For oilseeds, the trade has been great, but discriminatory tariffs may be holding back U.S. oilseed processors.

The U.S. produces almost 40 percent of the world's total oilseeds. Soybeans alone comprise more than 90 percent of the world's oilseed trade, and the U.S. accounts for about 75 percent of these exports.

The U.S. also leads the world in exports of peanuts, with more than 20 percent of the total, and is second in cottonseed shipments (15 percent), after the U.S.S.R.

However, for the past 10 years or more, Europe and Japan, the major importers, have protected their oilseed processing enterprises through tariffs on imported vegetable oils. Imports of the seeds are duty free.

Surplus for export

Once oilseeds are imported, they are processed into oil or meal. In Europe, for example, almost all the meal is used domestically, while substantial amounts of the oils are exported. Therefore, although Europe doesn't produce the oilseeds it needs, it has a surplus of some vegetable oils for export.

Oilseed processors in the European Community (EC—France, Belgium, Luxembourg, Italy, the Netherlands, West Germany, Denmark, Ireland, and the United Kingdom) are protected by the EC's Common Agricultural Policy, which imposes trade restrictions on vegetable oils from the U.S. and other nonmember countries.

Oil tariff

For oil imports, the EC's tariff is generally 10 percent of the price paid for crude and 15 percent for refined vegetable oil; there are no duties on oilseeds.

EC producers of sunflowerseed, rapeseed, and cottonseed are protected by a CAP payment program which provides a subsidy based on the difference between the target price and the world price.

Like the EC, Japan has a plan to encourage its own oilseed processors. All oilseeds, except peanuts, enter the country tariff free. Oils, on the other hand, are subject to tariffs ranging from 4 to 30 percent. Tariffs are not imposed on meals.

U.S. tariffs

Unlike the EC and Japan, the U.S. imposes tariffs on oilseeds, the meals, and the oils as well. Palm oil is the only major vegetable oil allowed to enter duty free.

American tariffs, although complicated, are not considered barriers to trade. Reduction or recession of these tariffs would probably affect world trade very little.

However, if foreign trade barriers hurt U.S. oilseed processors, it's quite likely tariffs could be harmful to countries trying to develop oilseed processing industries.

Without tariffs, or even with lowered tariffs on oils, it's possible that the oilseed processing industry would be stimulated, with more countries able to enter or compete in vegetable oil production.

[Based on the manuscript, "International Oilseeds and Oilseed Products Markets: Policies and Trade," by R. McFall Lamm, Jr., Commodity Economics Division.]

For more information on oilseeds, subscribe free to: Farmers' Newsletter, Oilseeds (4), ESCS Information, Room 0005, USDA, Washington, D.C. 20250. (Other free Newsletters include Wheat (1), Feed (2), Livestock (3), Cotton (5), and General (6). Each is published at least five times a year.) Please print your name (last name first) and address, including Zip, when ordering.

Saving the Sperm Whale

Three little known oilseed plants—meadowfoam (Limnanthes), crambe, and jojoba—may keep the sperm whale from going the way of the dinosaur.

Since 1971, when the sperm whale was placed on the U.S. endangered species list and sperm oil imports were banned, sperm oil use has been almost nonexistent in this country.

To ease the demand for the fine sperm oil—prized for its use in an array of products, from cosmetics to automatic transmission fluid—researchers have developed commercial oils from petroleum. But not everyone (car manufacturers in particular) is pleased with the results.

Liquid waxes

What makes sperm oil so special is that it consists mainly of liquid waxes that can withstand high temperatures and pressures as it lubricates gears and bearings.

In a search for substitutes with the same qualities as sperm oil, USDA is studying the three oilseeds.

Meadowfoam (so called because its thick, white flowers look like a foamy seaspray) seeds contain a unique vegetable oil that by chemical transformation can be converted into liquid wax esters similar to those of sperm oil.

Winter annual

A winter annual native to the Pacific Northwest, its seeds are sown in southern Oregon and northern California in November and harvested in May, leaving time for another crop, such as rice or beans, to be planted and harvested.

The main problem with producing meadowfoam is its tendency to sprawl and lose its seeds right at harvesttime. Fortunately, with 8 species and 11 varieties growing wild on the West Coast, the chances of breeding the plant to get more upright growth and better seed retention are good.

In fact, one variety, called "Foamore," has shown an average seed

yield of 1,000 to 1,400 pounds per acre. USDA plant scientists are confident that meadowfoam holds promise as a replacement for sperm oil.

Another plant capable of producing an oil similar to that of sperm oil is crambe. Unlike meadowfoam, crambe is not an American native—it originates in the sunny Mediterranean area and Africa.

Introduced into U.S.

Crambe seeds were first introduced into the U.S. by the Connecticut Agricultural Experiment Station in the 1940's. Tests from Alaska to Louisiana have shown that the plant is tough and takes well to any area with a cool planting season.

Crambe seeds closely resemble mustard seeds, although larger in size. They can be planted in early spring and harvested 3 months later. Because of this short growing time, another crambe crop can be planted around mid-July or as soon as possible after the first crambe harvest in some locations. Crop yields have averaged about 1,500 pounds of seeds per acre.

Industrial oil

Oil from crambe seeds is an industrial oil containing erucic acid, which after chemical refining can be converted into wax esters similar to sperm oil.

In addition to its use as a sperm oil substitute, crambe oil has potential in a number of other industrial products, one of which is plastics. Also, when the oil is removed, a relatively high protein meal is produced which can be processed as cattle feed.

Although the market potential for crambe byproducts seems good, farmers aren't exactly rushing to grow the crop because profits have been small.

Production scarcity

The main production drawback has centered on the scarcity of factories to process the seeds and the lack of herbicides to control weeds. Despite these problems, crambe is grown commercially on a small scale in Montana, North Dakota, and several other States.

USDA scientists suggest that once the bugs are worked out of crambe oil production, there will be a sizable potential market for it.

Jojoba, the crop USDA researchers contend has the greatest potential for replacing sperm oil, grows wild in the deserts of Arizona, California, and New Mexico. The oil from its peanut-sized seeds is so similar to sperm oil that it has already been tabbed as an effective replacement by many industry officials.

Needs no processing

Jojoba oil, unlike the oil from meadowfoam and crambe, needs no chemical processing to produce a wax almost identical to sperm oil in characteristics.

USDA researchers found jojoba oil has actually proved to be as much as four times more effective than sperm oil in certain experiments measuring durability in automatic transmissions.

The major problem associated with jojoba production is assuring a reliable supply to meet industrial demand. Unlike meadowfoam and crambe, which can be harvested at least once each year, it takes 5 years before the jojoba plant can be harvested.

Requires little water

A principal advantage in growing jojoba is that it requires little water. In areas of low rainfall (5–6 inches per year) and low soil fertility, jojoba can grow to 4 feet in height. With rainfall of 16 inches and medium soil fertility, plants have exceeded 10 feet.

Because of the long growing time of jojoba, research efforts have been aimed at increasing the seed production of existing plants. One new technique, water harvesting—gathering and storing runoff from rain or snow on nearby desert land—has dramatically increased the yield of seeds on existing bushes in areas that average only 9 inches of rain per year.

Indians grow jojoba

For the past 6 years, several Indian tribes in the Southwest have grown jojoba. Since 1972, $3.5 million of Federal, State, and regional money has gone for development of the Indian jojoba industry.

The U.S.S.R. and Japan—the only two countries that continue to hunt the sperm whale—defend their actions by saying that whaling is an economic necessity. On these grounds, the survival of the majestic creature may well depend on swift research of these oilseeds to find viable substitutes for sperm oil.

[Based on special material from Harry Doty, National Economic Analysis Division; Dr. John Rothfus, Agricultural Research Service, Northern Regional Research Laboratory, Peoria, Ill.; and the article, "Water Harvesting Boosts Yield of Jojoba Seed," in *Agricultural Research*, September 1978.]

New Heights for Crop Reporting

The day may be approaching when crop reporters no longer have to get down on hands and knees, lay out small frames, and count individual plants to predict crop yields.

Today, America's oldest technology is being assisted by one of its newest, as satellite research is being incorporated into USDA's crop assessment program.

Early this year, information collected by satellite was coupled with ground-gathered data to improve the official USDA year-end estimate of Iowa's planted corn and soybean acreages.

This was the first time researchers of the Department's Economics, Statistics, and Cooperatives Service (ESCS) analyzed satellite data for an entire State and compared the findings with ground-gathered data for a regularly scheduled report on crop acreages.

Sampling errors reduced

Researchers found that the satellite data, when assisted by ground-gathered data, helped reduce sampling errors usually associated with conventional crop surveys and demonstrated that satellites can be used to identify crops and indicated planted acreage.

All USDA satellite research is assisted by the National Aeronautics and Space Administration (NASA) and is based on data relayed to earth from Landsat satellites that orbit the earth 600 miles away. These satellites circle the earth in a continuous polar orbit, covering the U.S. every 9 days.

Landsat I was launched in July 1972, Landsat II in February 1975, and Landsat III in March 1978. In the 1980's, Landsat D will be launched, providing improved coverage and capability to identify crops.

Measure solar energy

The satellites identify individual crops (each crop has its own "signature") by measuring the solar energy reflected from each—different crops reflect varying amounts of energy. Once the signature of a crop is discovered, technicians can identify other areas where the same crop is planted.

The satellite does not take a "picture," but instead collects impressions that transmit these to ground stations as digital information. This is converted to a rough reflection of what the satellite "sees."

Satellites were used to estimate crop conditions and production in the recently completed Large Area Crop Inventory Experiment (LACIE), involving USDA, NASA, and the National Oceanic and Atmospheric Administration (NOAA)

Wheat forecasts

LACIE used satellite data to forecast production of a single crop—wheat—during crop years 1974/75 through 1976/77 in several test areas, including the U.S. Great Plains, the U.S.S.R., the Peoples Republic of China, Argentina, Australia, Brazil, and India.

This project also demonstrated some potential for crop reports using earth-orbiting satellites. However, many technical problems remain to be resolved. For example, with current remote sensing technology, the costs of collecting and interpreting detailed acreage and production data nationwide for continuous reports could be astounding.

Slow process

In addition, the time it currently takes to obtain and process data from the satellite—anywhere from 29-60 days—remains a serious drawback. Also, Landsats have shown little potential in determining crop yields, because during various stages of the growing season, one crop's signature may be about the same as another's, making it difficult to tell the two apart.

So, although crop forecasting by satellite has come a long way in recent years, for now the best source by far is still the farmer himself. In fact, satellites aren't even in the running when it comes to reporting livestock production, future cropping, marketing plans, production expenses, and so on.

Because what happens in many foreign countries affects markets for U.S. farm products, this suggests a potentially important role satellites can play now—as an early warning system of world crop shortages and surpluses.

The different requirements of this role will hopefully minimize processing time and other limitations of current remote sensing technology.

New phase of remote sensing

As a result, USDA is moving into a new phase of remote sensing—Crop Condition Assessment (CCA).

USDA's Foreign Agricultural Service hopes to use CCA to detect such situations as frosts, floods, droughts, or abundances of crops in major producing countries.

The idea is that timely information on possible trouble spots in world crop production would give producers and policymakers greater flexibility in planning ahead. If successful, this breakthrough would allow swift USDA action to lessen marketing and distribution problems—and price fluctuations—that often arise through lack of early crop condition information in much of the world.

Great potential

With output from 1 out of 3 U.S. farm acres now being exported, the benefits of such an early warning system to America's agricultural economy might be tremendous.

Jimmy Murphy, acting director of the new CCA division, describes the program in this way: "We will use satellite data to determine an area of occurrence—let's say of a drought or a freeze—and make an assessment of severity. We also want to know about bumper crop prospects."

Murphy added, "It's more of an early warning analysis and impact assessment, rather than an inventory approach."

In addition to looking for potential trouble spots in world production, the CCA will also focus on:

- Commodity production forecasts.
- Land use classification and measurement.
- Renewable resources inventory and assessment.
- Conservation practices assessment.
- Pollution detection and impact evaluation.

Closing information gaps

Murphy sees CCA as a way of filling information gaps that hinder farmers, traders, and consumers. "Of course, our primary user is the American farmer," Murphy said. "We think that timely information about foreign crops will give the farmer greater flexibility in choosing among crops and in taking advantage of markets.

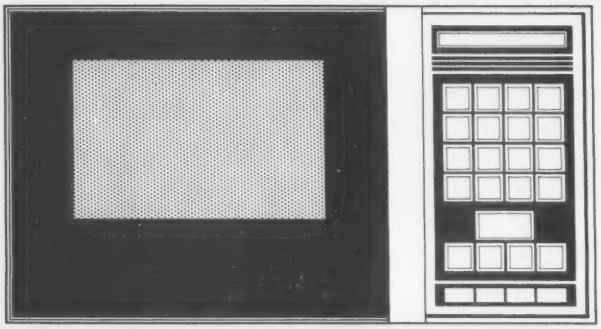
"For the consumer and the marketplace, timely information can help stabilize the wide fluctuations in prices. And export programs might be better planned.

"From a humanitarian standpoint, remote sensing can help identify developing crises, such as Bangladesh during the early 1970's, when thousands of people died in the wake of severe drought."

Some of the priority countries that will be looked at in the new program are the U.S.S.R., the Peoples Republic of China, India, Argentina, Brazil, and Mexico.

[Based on special material from George Hanuschuck, Statistical Research Division; Beverly Horsley, Foreign Agricultural Service; and the National Aeronautics and Space Administration (NASA).]

The Microwave Craze



Electric and gas stoves may go the way of the black and white television if the recent trend toward microwave ovens continues.

Experts predict that by the end of next year, 18 percent of all U.S. households will be using this new cooking method. Over 3 million microwave units were sold last year alone.

Microwave ovens are popular because they substantially reduce cooking time. For example, a 5-pound rolled-rib roast takes about 3 hours to cook in a conventional oven, around 50 minutes in a microwave; baked potato, about 1 hour, compared with 5–6 minutes; frozen fish portions in butter sauce, 25–30 minutes, compared with 6 minutes.

Important to consumers

The reduced cooking time is important to many of today's working consumers who don't want to spend hours at home in the kitchen.

Microwaves cook faster than conventional units because their unique heating process—electromagnetic waves penetrate the food causing positive molecules to vibrate and create friction—starts on the outside of the food and moves inward. Since most of the heat is retained by the food, the process is very fast.

As a result, vitamin and mineral loss is minimized, while energy efficiency is maximized. According to the National Bureau of Standards (NBS), microwave ovens are 40 percent energy efficient, compared with 14 percent for electric and 7 percent for gas stoves.

No quick energy payback

But, unfortunately, the increased efficiency doesn't necessarily mean a quick payback to the consumer. The Department of Energy estimates that a microwave oven saves its owner about $10 a year more in energy costs than a conventional unit.

Such a payback would be considered minor to most consumers, since the typical microwave oven costs considerably more—at least $200—than an electric or gas stove.

Over the past few years, however, the basic microwave unit has become relatively less expensive than when it was first introduced.

No common oven settings

One of the major drawbacks to using a microwave oven is that there are no common oven settings. In other words, one manufacturer's "medium" can be another's "medium high"; or one's "roast" can be another's "bake."

As a result, food manufacturers cannot accurately advise consumers on cooking times and temperatures; a standard cookbook is impossible.

Another drawback is that many of the frozen convenience foods are packaged in foil containers, which cannot be used in a microwave oven.

These packages usually include instructions to transfer the contents to nonmetallic containers before heating in a microwave unit. But the inconvenience of this added step is a turnoff to many consumers.

Many manufacturers, however, have already switched to paper-type containers which can be used in both a microwave and a conventional oven.

Safety factor

Consumers are also concerned about the safety factor. Microwave ovens emit radiant heat, and to protect consumers from overexposure, the Food and Drug Administration (FDA) monitors the safety standards of all microwave ovens manufactured after October 1971.

However, a recent General Accounting Office report indicated that FDA had been lax in its monitoring duties for some models. FDA has been urged to step up it surveillance efforts.

Despite these disadvantages, the trend toward more microwave ovens seems assured. To assess who's using them (to cook beef) and how satisfied they are, USDA'S Economics, Statistics, and Cooperatives Service (ESCS) conducted a recent survey of 1,350 households.

Survey results

Among the survey results:

- Approximately 4 percent of the households used microwave ovens to cook beef in early 1976. By early 1978, the percentage had increased to 9.
- Only 2 out of every 100 senior citizen households cooked beef in microwave ovens, compared with 9 out of 100 for other respondents.
- Twenty percent of the respondents who cooked beef in microwave ovens were dissatisfied with the unit's inability to brown meat.

[Based on the article, "Microwave Ovens: Who's Using Them and Why," by Larry Traub, National Economic Analysis Division, in the March 1979 issue of *National Food Review.*]

Ginseng: The Versatile Herb

One of the oldest, and certainly one of the most versatile, U.S. agricultural exports is ginseng—an unsightly herb valued in the Orient and elsewhere for its supposed properties as a stimulant, tonic, and aphrodisiac, among others.

American shipments of ginseng, which grows wild from the Ozark Mountains to the Atlantic Ocean, reached a record value of almost $27 million in 1977—nearly twice the level of a year earlier. The amount exported increased 15 percent during this period, while the average price rose 28 percent.

Last year, lower export prices resulted in a decline in value to $24.6 million, although on a quantity basis, U.S. ginseng exports were greater than a year earlier.

Cultivated vs. wild

Today, nearly all American ginseng is exported. Most is cultivated (mainly in Wisconsin), but since the wild variety commands a higher price, it accounts for nearly half the value of U.S. exports.

Until recently, only small amounts of ginseng have been processed in this country. As a result, increasing amounts of this advanced form have been imported from Korea and other countries.

Korea exported over $2 million worth of instant ginseng tea to the U.S. in 1977. Other popular processed products are capsules, extract, and drinks—most of which are sold in health food and Oriental stores.

To meet this new demand, more American ginseng is now being processed. For example, in 1978, a fifth of U.S. ginseng exports were processed.

Major markets

Most American ginseng exports go to Hong Kong—89 percent in 1978 for a value of nearly $22 million. Other major markets in that year were Singapore and West Germany. Minor destinations included Canada, Taiwan, and Nigeria. (The People's Republic of China became a significant market for the first time in 1978.)

While the demand for U.S. ginseng seems assured, one recent event could affect American shipments. Since May 1977, an export permit has been required for wild ginseng under the Convention on International Trade in Endangered Species of Wild Fauna and Flora, of which the U.S. is a member. (Cultivated ginseng also requires an export permit, but can continue to be freely exported.)

Regulation stipulations

According to this regulation, wild ginseng gathered during 1978 and thereafter cannot be exported, except from States that have adequate regulations to safeguard against "indiscriminate harvesting." To date, 17 States have been nominated for certification.

But despite such temporary restrictions on wild ginseng exports, the overall uptrend of American shipments is expected to continue in the future.

[Based on special material from Fred Gray, Commodity Economics Division, and Gordon E. Patty, Foreign Agricultural Service.]

A Colorful Past

For centuries, ginseng has been one of the most prized medicinal drugs in the Orient. Confucius reportedly spoke of its great healing powers some 2,500 years ago.

Ginseng was so popular with the ancient Chinese that their name for it—*jen-shen*—translates into "man-essence."

The herb was discovered growing in North America in the early part of the 18th century. Soon afterward, export of American ginseng to the Far East began.

It was first gathered by French trappers and Indians—who knew where to look for it—and shipped to China from Canada and New England.

After the Revolutionary War, U.S. pioneers and their descendents began exporting ginseng. Daniel Boone was reported to have shipped several tons of ginseng root that he had gathered in Kentucky.

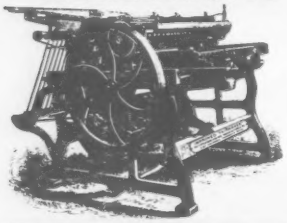
Commercial cultivation of ginseng was begun in the late 19th century, due to the diminishing virgin forests and higher market prices.

Toward the turn of the century, cultivated ginseng was a boom industry. But overexpansion resulted in overproduction, and by 1904, disease became severe and much of the seed crop was destroyed.

According to the 1909 Census of Agriculture, only 23 acres of ginseng were under cultivation in the U.S. By 1929, the number had increased to 434 acres. Today, there are an estimated 650 acres.

[Based on *U.S. Ginseng in the Far East Market*, FASM-261, December 1974, by Gordon E. Patty.]

Recent Publications



Single copies of the publications listed here are available free from *Farm Index*, Economics, Statistics, and Cooperatives Service, Rm. 482 GHI, 500 12th St., SW, U.S. Dept. of Agriculture, Washington, D.C. 20250. However, publications indicated by (*) may be obtained only by writing to the experiment station or university indicated. For addresses, see July and December issues of *Farm Index*. Publications marked with (:) may be purchased from NTIS, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, Va. 22161, at the price listed.

Developments in Marketing Spreads for Food Products in 1978. National Economic Analysis Division. AER-420.

Retail food prices in 1978 averaged 10 percent higher than in 1977—the largest increase since 1974. The spread between farm and retail prices (representing charges made for processing and distributing foods after they leave the farm) was up 8.2 percent and accounted for 40 percent of the food-price increase. Higher prices for fish and imported foods accounted for 10 percent of the increase.

Goal Programming Estimates of Livestock Roughage Consumption, by Type of Roughage, by State, 1971–73. George Allen, Greg Gage, Larry Otto, Jerry Plato, and Reuben Weisz, Natural Resource Economics Division. PB 289 818.

This report uses the goal programming concept to estimate livestock roughage consumption by type of roughage and State. Input data requirements for applying the model to each of the 48 contiguous States are described, followed by the running of the model for each State.

Price Support and Adjustment Programs from 1933 through 1978: A Short History. Wayne D. Rasmussen and Gladys L. Baker, National Economic Analysis Division. AIB–424.

Many USDA programs, particularly those concerned with farm price support and adjustment legislation, result from a series of interrelated laws passed by Congress from 1933 to 1978. By providing a history of how Congressional legislation and programs have been modified for changing economic situations, this review serves as background for economists and others who analyze present farm programs.

An Analysis of a Ban on Nitrite Use in Curing Bacon. National Economic Analysis Division. ESCS–48.

Nitrate and nitrite use in curing meat has become increasingly controversial since it was discovered that nitrite can interact with secondary and tertiary amines to form carcinogenic nitrosamines. Recent evidence that sodium nitrite itself may be a carcinogen has intensified that debate. Regulatory actions restricting the use of these curing agents have already been taken, and others are being discussed.

Conversion Factors and Weights and Measures for Agricultural Commodities and Their Products. SB-616.

The tables in this report were compiled to provide a manual of uniform conversion factors for use in statistical, research, and service programs of USDA. Factors for many commodities change from year to year; therefore, caution should be exercised when using these data to compile or revise historical series.

Retail Meat Prices in Perspective. James E. Nix, Commodity Economics Division. PB 283 387. #

This report attempts to place in perspective events of the past decade affecting retail meat prices, their causes and consequences, and from that base forecast possible conditions during the next few years. The review and analysis of consumer demands, marketing processes, and the producer's costs and profits foretell the direction of the meat industry. ($4)

Agricultural and Food Research Issues and Priorities. Science and Education Administration.

This report focuses on the findings and recommendations contained in conference proceedings, congressional hearings, special studies, articles, and other published reports and materials dealing with agricultural and food research policy and performance. Single copies are available free from USDA, SEA, FR, Information Staff, Public Inquiries Unit, 6505 Belcrest Rd., Hyattsville, Md. 20782.

U.S. Cropland Rental Practices. Pat Weisgerber, Commodity Economics Division. ESCS–46.

A recent survey indicates that the pattern for farm lease contracts between tenants and landlords follows traditional land rental arrangements. Contracts range from almost purely crop-sharing leases in the western wheat/summer fallow regions to almost purely cash leases in the New York and Pennsylvania dairy regions. The most common agreement on share-rented acres and the most common rental on cash-rented acres are summarized for 35 States.

Economic Trends

[1]Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. [2]Beginning January 1978 for all urban consumers. [3]Revised to adapt to weighting structure and retail price indexes for domestically produced farm foods from the new Consumer Price Index for all urban consumers (CPI-U) published by the Bureau of Labor Statistics. [4]Annual and quarterly data are on a 50-State basis. [5]Annual rates seasonally adjusted fourth quarter. [6]Seasonally adjusted. [7]As of March 1, 1967.

Source: USDA (Agricultural Prices, Foreign Agricultural Trade, and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report, and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force, Wholesale Price Index, and Consumer Price Index).

Item	Unit or Base Period	1967	1978 Year	1978 Feb.	1978 Dec.	1979 Jan.	1979 Feb.
Prices:							
Prices received by farmers	1967=100	—	210	193	222	232	240
Crops	1967=100	—	203	190	205	209	214
Livestock and products	1967=100	—	216	196	237	252	264
Prices paid, interest, taxes, and wage rates	1967=100	—	219	211	226	234	238
Prices paid (living and production)	1967=100	—	212	203	221	225	229
Production items	1967=100	—	216	206	225	230	235
Ratio[1]	1967=100	—	96	91	98	99	101
Producer prices, all commodities	1967=100	—	209.3	202.1	217.4	220.7	223.9
Industrial commodities	1967=100	—	209.4	202.9	217.0	219.9	222.4
Farm products	1967=100	—	212.7	198.9	222.4	230.1	240.5
Processed foods and feeds	1967=100	—	202.6	194.9	211.9	215.3	218.7
Consumer price index, all items[2]	1967=100	—	195.4	188.4	202.9	204.7	—
Food[2]	1967=100	—	211.4	202.0	219.4	223.9	—
Farm Food Market Basket:[3]							
Retail cost	1967=100	—	199.4	188.3	207.7	213.3	218.5
Farm value	1967=100	—	207.4	191.0	218.9	230.8	239.5
Farm-retail spread	1967=100	—	194.5	186.7	200.8	202.6	205.7
Farmers' share of retail cost	Percent	37.8	39.3	38.3	39.7	40.9	41.4
Farm Income:[4]							
Volume of farm marketings	1967=100	—	122	101	134	130	—
Cash receipts from farm marketings	Million dollars	—	110,220.7	7,280.3	10,408.0	10,606.7	—
Crops	Million dollars	—	52,180.1	3,209.8	5,185.0	5,114.1	—
Livestock and products	Million dollars	—	58,040.6	4,070.5	5,223.0	5,492.6	—
Gross income[5]	Billion dollars	49.9	124.3	—	133.2	—	—
Farm production expenses[5]	Billion dollars	38.2	96.1	—	101.5	—	—
Net income before inventory adjustment[5]	Billion dollars	11.7	28.2	—	31.7	—	—
Agricultural Trade:							
Agricultural exports	Million dollars	—	—	2,068.0	2,736.6	2,431.9	2,356.4
Agricultural imports	Million dollars	—	—	1,222.2	1,359.7	1,475.1	—
Land Values:							
Average value per acre	Dollars	[7]168	—	490	—	—	560
Total value of farm real estate	Billion dollars	[7]189	—	524	—	—	598
Gross National Product:[5]	Billion dollars	796.3	2,107.6	—	2,214.8	—	—
Consumption	Billion dollars	490.4	1,340.1	—	1,403.9	—	—
Investment	Billion dollars	120.8	345.6	—	364.0	—	—
Government expenditures	Billion dollars	180.2	433.9	—	454.5	—	—
Net exports	Billion dollars	4.9	−12.0	—	−7.6	—	—
Income and Spending:[6]							
Personal income, annual rate	Billion dollars	626.6	1,708.0	1,625.0	1,811.6	1,817.9	1,829.0
Total retail sales, monthly rate	Billion dollars	24.4	65.0	61.5	70.3	71.0	71.5
Retail sales of food group, monthly rate	Billion dollars	5.8	14.3	13.9	15.3	15.6	15.6
Employment and Wages:[6]							
Total civilian employment	Millions	74.4	94.4	93.0	95.9	96.3	96.6
Agricultural	Millions	3.8	3.3	3.3	3.4	3.2	3.3
Rate of unemployment	Percent	3.8	6.0	6.1	5.9	5.8	5.7
Workweek in manufacturing	Hours	40.6	40.4	40.1	—	—	—
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	6.17	—	—	—	—
Industrial Production:[6]	1967=100	—	145.2	139.2	150.8	150.8	151.2
Manufacturers' Shipments and Inventories:[6]							
Total shipments, monthly rate	Million dollars	46,487	125,317	118,982	135,035	135,604	—
Total inventories, book value end of month	Million dollars	84,527	197,802	182,393	197,802	201,224	—
Total new orders, monthly rate	Million dollars	47,062	129,263	122,544	140,356	143,042	—

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